

THE LIFE HISTORY OF *TAGIADES JAPETUS JANETTA* BUTLER (LEPIDOPTERA: HESPERIIDAE: PYRGINAE)

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Abstract

The life history of *Tagiades japetus janetta* Butler is described and the larval food plant listed.

Introduction

The black and white flat butterfly, *Tagiades japetus janetta* Butler, is distributed on the Australian mainland from Cape York to Shute Harbour (Common and Waterhouse 1981). J. F. R. Kerr (Common and Waterhouse 1972, 1981) has suggested that this species may have extended its range farther south quite recently. It was not taken by F. P. Dodd in the Kuranda or Cairns areas early this century, nor by A. N. Burns when he lived at Meringa between 1925 and 1930. As its food plant is found continuously along the coast into northern New South Wales (Jones and Gray 1977), this skipper may even further expand its distribution.

Life history

Food plant. *Dioscorea transversa* (R. Brown), common yam vine (Dioscoreaceae).

Egg (3 examined). White, domed, 0.8 mm at base. Shell with 13 fine, vertical, ribs.

First instar. Head smooth, pale brown, semi-circular at base and flat on top, except for a shallow median, longitudinal groove. Body finely haired, entirely red or red with green dorsal region, anal plate pale brown. Prothorax occasionally brown or black. Length 2.8 mm.

Second instar. Head granulated, dark brown, less rounded at base, median longitudinal groove deeper. Body with green dorsal region.

In the following instars the head comes to resemble a stylized heart in shape. Body becomes more green, red area contracting to base.

Fifth instar. (Fig. 1). Head granulated, black, approximating a stylized heart in shape. Body green with minute white spots. Length 26 mm.

Pupa (Fig. 2). Smooth, translucent green with isolated brown spots and patches of white waxy scales. These are found on the operculum, wing cases and abdominal segments. Head bears a short projection, directed slightly upwards and bluntly conical in shape. Length 20 mm.

Notes

Eggs are laid singly on the upperside of young leaves of the food plant. First instar larvae construct shelters by eating out a roughly triangular shaped section of leaf, remaining attached only at its apex, and folding this backwards. The leaf edge is often used as the base of this triangle. The folding of the leaf is achieved by constructing a silken hinge at the still attached apex



Figs 1, 2. *Tagiades japetus janetta*: (1) fifth instar larva; (2) pupa.

of the triangle. This gradually raises the section until it has travelled through 180 degrees. Larvae assume a hunched posture beneath the roof of the shelter and feed at night. Several shelters of this type are constructed by each larva as it grows. Late instar larvae construct shelters by joining overlapping leaves. Pupation occurs within the fifth instar shelter. The pupa is suspended beneath the roof of this shelter by a cremaster and "Y" shaped central girdle, the fork of which supports the pupa.

The life cycle takes approximately six weeks in the summer months; egg six days, larva 23 days, pupa 10 days.

The population of this species fluctuates very markedly throughout the year, being greatest toward the end of the wet, when the foodplant supports maximum foliage. With the coming of the dry most plants die back to an underground tuber, only those plants along permanent watercourses that retain foliage support a greatly reduced population.

References

- Common, I. F. B. and Waterhouse, D. F., 1972. *Butterflies of Australia*. Angus and Robertson, Sydney, 498 pp.
- Common, I. F. B. and Waterhouse, D. F., 1981. *Butterflies of Australia*. Revised edition, Angus and Robertson, Sydney. 682 pp.
- Jones, D. L. and Gray, B., 1977. *Australian climbing plants*. A. H. & A. W. Reed, Sydney. 166 pp.